

July, 1961 50 cents

# COUNTY AGENT VO-AG TEACHER

THE LEADING MAGAZINE FOR AGRICULTURAL LEADERS

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**Mechanized Feeding**

**1961 Structures**

**Field Report**



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# THEY BUILT A STURDY WAGON FOR ONLY \$125!



They couldn't find the kind of wagon they needed at the price they wanted to pay, so W. E. Church and his son, B. E., built their own! Second-hand and discarded materials were used for the 24-foot chassis. Fir wood was used for the frame and bed, and 1½" double-strength steel tubing for the chassis. The axles and wheels are from an old Ford.

The Churches operate a 455-acre dairy farm with 75 cows, near Woodburn, Ky., and raise their own feed and other crops. They prefer Texaco Products for fueling and lubricating their costly farm equipment. They like the lively power of Fire Chief gasoline for tractor and truck operation.

Fire Chief is Climate-Controlled for altitude and seasonal temperatures, which in turn gives you faster starts and smoother warm-ups. Since your engine runs more efficiently, you save money on gasoline.

Successful farmers everywhere know that *it pays to farm with Texaco Products.*

SHOWN IN PHOTO (left to right) are Roy Phillips, manager of the Texaco Consigneeship at Bowling Green, Ky., W. E. and B. E. Church.



## ANOTHER TEXACO BOOSTER!

Mrs. Louise Ingham farms 850 acres near Booneville, Iowa, and raises hogs, sheep and calves. Mrs. Ingham is a booster for Texaco Products, especially Advanced Custom-Made Havoline Motor Oil. Havoline's exclusive combination of detergent additives prevents harmful engine deposits and wear. Engines deliver full draw-bar power, and more fuel mileage.

Here a delivery is being made by Texaco Distributor Ferd Jungman, Van Meter, Iowa.



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TUNE IN: TEXACO HUNTLEY-BRINKLEY REPORT, MONDAY THROUGH FRIDAY, NBC-TV



*He kept records to find out . . .*

## **MoorMan's builds pork for less cost**

"I've kept cost records on other feeds. I've even made comparative tests. I'm satisfied that MoorMan's can put on pork for less cost than any other feed," says Meade Noble, Fayette County, Ohio.

"The real worth of a hog feed is measured by the cost of pork it will put on hogs. The way to find out is to keep accurate feeding cost records.

### **Feed costs of \$7.82 to get 100 lbs. pork**

"We usually market between 500 and 600 hogs a year. My feed cost

on 109 spring pigs, averaging 211 pounds at market, was \$7.82 for each 100 pounds of pork produced from birth to market.

"This included the cost of corn and MoorMan's Mintrates\*. It took only 2.78 pounds of total feed to build a pound of pork."

*These data do not include cost of sows' feed or value of sows' milk. On a MoorMan program, cost of sows' feed figures about \$3 per pig, breeding to weaning, based on a 9-pig litter average.*

### **Feed cost records determine performance**

Important words in Mr. Noble's statement are *feeding cost records*. They're *tools* he uses to determine how well a feed helps him raise hogs for profit.

Like many hog feeders, he found cost-of-production records are the best way to determine that profit.

It takes a sharp pencil and well-kept records on costs of feeding to figure out what kind of a program provides the most pork, and lowest-cost pork, for the feed investment.

That's why you'll find, that when a livestock feeder keeps accurate feed cost records, he'll keep his livestock on a MoorMan Program.

## **MoorMan's\***

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# COUNTY AGENT VO-AG TEACHER

JULY 1961  
Vol. 17 No. 7

THE LEADING MAGAZINE FOR AGRICULTURAL LEADERS

## FEATURES

### 10 Modern Ideas for Farm Structures

Pamper pads, geospace domes, foil-lined brooder guards, nails that do more than just hold two pieces of wood together, studies on kind and color roofs which best keep the heat out—all are covered in our special report.

### 14 Where Do We Go From Here? by Glenn Morrill

The author responds to our May editorial, "Beware of the Academic Trap."

### 16 This Feed Blender Does the Whole Job by Richard L. Witz

One major problem with automatic feeding has been the need for a blender which will remove several kinds of feed from storage at different rates, then blend or mix these ingredients before their final processing and shipping. Ag engineers at North Dakota State University have installed a unit to do the job.

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COUNTY AGENT AND VO-AG TEACHER



# SUL·PO·MAG<sup>®</sup> *bulletin*

NEWS FOR FARM ADVISORS ABOUT SUL-PO-MAG AND OTHER PLANT FOODS

## MICHIGAN ADDS NEW EXCHANGEABLE MAGNESIUM TEST

Farmers in Michigan are now being advised on the amount of water soluble magnesium their soils need for top yields and quality.

Dr. Ray L. Cook, Head, Soil Science Department, Michigan State University, says that all soil samples will now be analyzed for exchangeable magnesium in the recently expanded soil testing laboratories at the University campus. This test has been added to the regular soil analysis resulting in recommendations for nitrogen, phosphorus, potassium and calcium.

The exchangeable magnesium test is being added so that Michigan growers will have the benefit of latest scientific findings to show when a lack of water soluble magnesium may limit production and quality.

Several county soil testing laboratories have been completely consolidated with the central laboratory in the Soil Science Department where the new equipment for exchangeable magnesium testing has been installed. The Michigan laboratories tested over 75,000 samples last year. The number this year will be even greater.

Co-operation among fertilizer company personnel, county agents, and farmers is resulting in improved soil fertility practices. Farmers who have their soils tested are then in a position to apply the amount and kind of fertilizer needed for maximum response.



Dr. John Shickluna, of Michigan State's Soil Science Department, uses a flame spectrophotometer to get a rapid and accurate determination of magnesium in a soil sample.

## NEW APPROACH FOR TOP CORN YIELDS

Heavy applications of fertilizer, including the use of potassium sulphate is the key to high corn yields, reports Jules Lage, who operates a 180-acre farm at Davenport, Iowa. In the fall he discs in up to 400 lbs. of urea, 200 lbs. of super phosphate, and 200 lbs. of potassium sulphate.

Lage says he is taking a cue from success-



(continued on next page)

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(The SUL-PO-MAG bulletin continued)

ful fruit and vegetable growers who long have used sulphate of potash and sulphate of potash-magnesia to increase their yields. Sulphate of potash is usually considered a premium fertilizer material because of its ability to deliver desired plant response.

Soil scientists report potassium sulphate is related to obtaining better balancing of phosphates and nitrates in fertilizers, thus contributing to increased yields. Lage topped 175 bushels of corn per acre last year.

Those making fertilizer recommendations to farmers might note that where sulphate of potash is desired—particularly by those farmers shooting for top corn yields—it can be specified by ordering potash in the sulphate form when the fertilizer is ordered. Further, to assure ample magnesium (the fourth plant food element), growers can specify that their fertilizer contain sulphate of potash-magnesia. This provides not only potash in the preferred sulphate form, but also magnesium in the water soluble form in which it is most readily available.

#### SUL-PO-MAG PRIMARY SOURCE OF WATER SOLUBLE MAGNESIUM

Water soluble magnesium marketed as SUL-PO-MAG, recognized as the primary source of water soluble magnesium, as well as potash in the premium sulphate form, is an ideal fertilizer ingredient marketed by leading fertilizer companies throughout the nation. Magnesium is readily available to plants when applied in this form as demonstrated in extensive tests by both universities and industry.

#### RESEARCH AND GRANTS-IN-AID SPEED AGRICULTURAL PROGRESS

Agricultural surpluses shouldn't blind us to the terrific cold war strength we have in farming know-how, says Nelson C. White, Vice President, International Minerals & Chemical Corp. Speaking before University leaders and county agents during Cornell's Agricultural Progress Days, at which Dean Charles Palm was host, he said:

"We know that ability to raise more food and fiber than we need with 10% of our labor force allows the remaining 90% to operate the greatest industrial, military potential in the world. No nation using 50% of its effort to feed and clothe its population can hope to surpass us."

He pledged IMC's active interest and cooperation with Cornell and other agricultural colleges for the increased efficiency of agricultural production. In addition to IMC's own research and development program involving expenditures of \$3 million a year, he revealed that IMC maintains a grant-in-aid program to agricultural schools totaling over \$1 million to date. Scholarships and fellowships are cornerstones of IMC's service program.

Dean Charles Palm conceived the new Agricultural Progress Days as a means of portraying agriculture's strength and value to the nation at home and abroad.



The College of Agriculture quad at Cornell University, scene of the annual Agricultural Progress Days. The first building on the left is the Agronomy Department.



# ag leaders washington

**Latest word from the Capitol—by John Harms and George Peter**

**Vo-ag salaries are authorized from new funds—no strings attached**

**A BATTLE OVER EDUCATION** with those who are still "living yesterday", as one official put it, may be necessary if vo-ag education as well as all other vocational training is to adapt itself to the new challenges of the times. This will be one of the roles forced on the new advisory committee on vocational education called for by President Kennedy, we gather, as we view the government gearing up to implement the new educational programs.

The major mission of the committee will be in response to the White House view that "technological changes which have occurred in all occupations call for a review and re-evaluation of these (vocational) Acts, with a view toward their modernization." This may mean jarring a few round pegs out of square holes.

Plans call for development of a full-scale rejuvenation program for vocational training of all kinds in time for Congressional approval next session. Hopes are that a new program could be in full effect sometime next year.

Membership of the committee, whose names should be announced in the public press by the time you read this, has been under meticulous scrutiny for several months. Members are drawn from the educational profession but also include representatives of labor-industry and agriculture as well as the lay public.

Cue to action to be expected by the committee and the new spirit to prevail in vocational education is in the President's special message on education which we are informed the new group is carrying out to the letter. The idea is that the government may provide the tools and the taxpayers the funds . . .

"**BUT** the needs of the next generation—the needs of the next decade and the next school year — will not be met at this level of effort. More effort will be required — on the part of students, teachers, schools, colleges and all 50 states . . ."

**FOR THE VO-AG** teacher and the county agent, the following developments

in Congress and high-level government planning offer ever bigger opportunities:

\*The Administration's program to inject a new element in Federal aid to education is well off the ground, although several months back there were predictions by the Gloomy Gusses that it would take a couple years to make headway. The new element is emphasis on education programs as U.S. investment in human beings. This has brought forth more action on education bills by Congress in the last five months than in the previous five years.

\*General Aid to Education—vo-ag teacher salaries are definitely authorized in the more than one-half billion dollars per year called for, although some reports seem to the contrary. The funds are not earmarked any more than they are earmarked for teachers of physics or other subjects. HEW Department tells us there are no strings on the funds in this respect.

Whether funds from this authorization are spent on vo-ag or other vocational education would depend on needs of the state educational system, what school authorities decide, how State Boards for Vocational Education feel and other local factors.

In states where vo-ag or other vocational education has been limited by the extent of funds under the national vocational acts and expansion is needed, the state would be fully free to use some of the new funds if it chooses to do so. All that may be necessary to participate is a little action on the part of vo-ag.

HEW advises that states continue to stress need for changes in vo-ag programs to meet the requirements of new farming methods. Limitations on how funds for vo-ag may be spent prevent this. Any funds for salaries of vo-ag teachers under the general aid authorizations are not under this limitation, however.

\*The Area Development Act has gotten off the ground and funds made available may be used for vocational agricultural training. Extension Service, Farmers Home Administration and Rural Electric Co-operatives will be cooperating.



**BELL SYSTEM ANNOUNCES A PROFITABLE NEW FARM COMMUNICATIONS  
TOOL THAT SAVES MAN-HOURS AND IMPROVES EFFICIENCY**

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phones where you need them**

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**Interphone gives you and your wife  
intercom between all phone locations**

Each Interphone station has a compact "speaker-microphone" that is interconnected with all other stations. This enables you to talk back and forth between these locations just as you would in ordinary conversation. If you wish, you can even converse "hands free" by speaking toward the speaker-microphone from several feet away.

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**Interphone gives you  
outdoor loudspeakers where you need them**

This Interphone feature keeps you in touch when you're outdoors around the farmstead. You can be called over this loudspeaker—and you can answer back "hands free" from considerable distance. The loudspeakers also allow a person in the house to monitor disturbances around the farm.



**Interphone also gives you  
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**1** Interphone keeps you in the driver's seat. Use it to instruct hired help or locate a person around the farmstead. Everyone knows what he's supposed to do. So, you get more done in a day.



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Farm Interphone was designed exclusively for farm use. It can save many times its cost by helping you make the most of your time and opportunities.

Interphone is a boon to farm wives, too. Using Interphone they can now trade information or call their husbands to the phone without running between the house and buildings.

Interphone is designed so that it can be installed to fit the needs of each individual farm. You can have the stations you need—where you need them, in the colors and styles of your choice. Interphone is easy to use. Its operation quickly becomes second nature to farm folks who have it. The cost is low—equipment is maintained in perfect working order at no additional cost.

**BELL TELEPHONE SYSTEM**



If you'd like to know more about Farm Interphone and what it can do for you, just call your local Bell Telephone Manager—or ask your telephone man if he is in the neighborhood—or mail the coupon below. There's no obligation on your part, of course.

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# MODERN IDEAS for

# FARM STRUCTURES

- *Geospace dome shelters have sparked interest as farm utility structures*
- *A new foil-lined corrugated brooder guard is said to be a fuel-saver*
- *New nail designs do more than just hold two pieces of wood together*
- *Help control the flow of heat from the attic with the right kind, color roof*

**F**ROM PAMPER PADS to geospace domes! Sounds like something used around our missile launching sites doesn't it? But the subject is *farm* structures.

The pad referred to is a "hygienic warming mat," developed by Pamper Pad, Inc., St. Marys, Ohio, to be used during the farrowing of pigs. Pigs maintain ideal body temperature immediately after birth, according to the manufacturer.

The geospace dome-shaped structure is 22 feet in diameter and is being marketed as a ready-to-assemble shelter by Filtered Rosin Products Co., a subsidiary of Monsanto Chemical Company.

It is a free-standing, portable dome 12½ feet tall and weighing only 450 pounds, but containing 352 square feet of usable floor space! And it sells for only \$345 F.O.B. Baxley, Georgia.

Oh yes, you want to know what it can be used for in agriculture.

## GOOD STORAGE FOR TOOLS

Geospace dome shelters already are being used for job-site storage of tools and materials, as construction "shacks" and as field offices and have sparked much interest as farm utility structures.

The Geospace dome shelter is formed from prefabricated triangular panels of one-half inch thick Fomecor board, resin coated for weather resistance, which are bent and bolted together at the site in a simple geodesic design. Two men without experience can assemble the dome in one day using

standard hand tools, according to Shand.

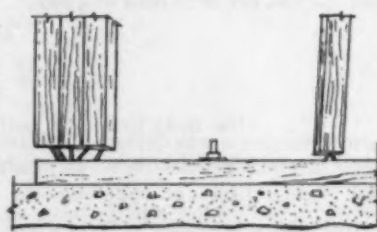
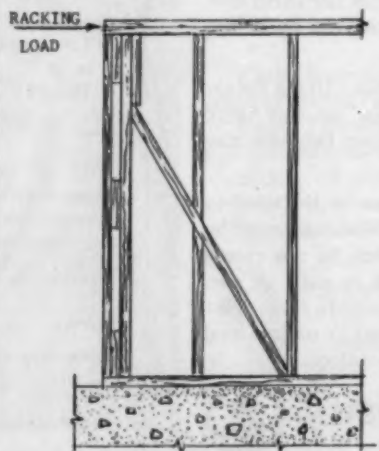
No foundation or special site preparation is necessary for the dome. It bolts to a wooden base ring which is then staked to the ground for permanence. Unstaked, the dome can be lifted and carried by four men, or disassembled for longer moves or for compact storage.

## SAVE FUEL WITH FOIL

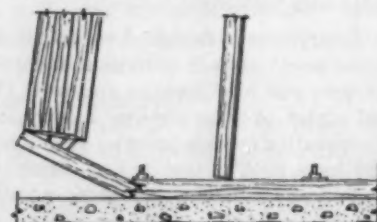
Anderson Box Company, Indianapolis, Indiana, has a new foil-lined corrugated brooder guard. It's supposed to provide important fuel savings and will speed up poultry growth.

Aluminum Company of America reports that this was proven in university tests recently completed. The Alcoa aluminum lining on the guard re-

**Figure 1.** Two house frames constructed as shown at left—one assembled with plain-shanked nails, the other with annularly grooved nails were subjected to racking loads. The loading rates and types of failures are shown at the right.



Nail Type: Plain-Shanked  
Racking Load: 360 lbs.  
Type Failure: Nails pulled out



Nail Type: Annularly Grooved  
Racking Load: 1640 lbs.  
Type Failure: Sill broke



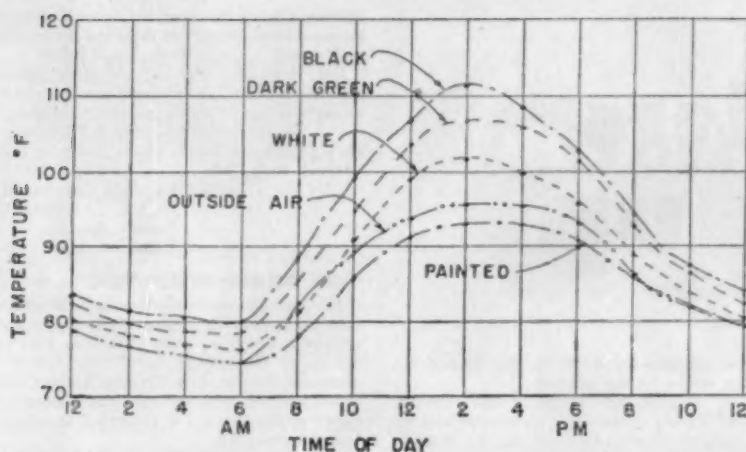


Figure 2. These curved lines show attic temperatures for the six hottest days of the test. Note the effect of roof color, especially in the mid-afternoon readings.

flects heat back into the brooding area, unlike other brooder guards which absorb warmth. The mirror-like surface also lights up the brooding area, making it easier for chicks and poults to find feed and water.

In New England weather, for example, fuel savings with the aluminum foil-lined brooder guard amounted to almost \$1.00 over a five-day period for 500 chicks. Some specific savings in the Northeast, with gas for fuel, were:

500 chicks started March 5th—16 lbs. bottled gas saved in 5 days

500 chicks started April 8th—19 lbs. bottled gas saved in 5 days

500 chicks started May 15th—14 lbs. bottled gas saved in 5 days

#### NEW NAILS IMPROVE BUILDINGS

Perhaps you've toured through homes in which George Washington and other revolutionary notables planned their strategy and you found the old wooden nails still doing their duty! Well, now we have new designs which do more than just hold two pieces of wood together. They actually improve the utility of the buildings themselves. In fact, their holding power may even increase with seasoning.

New nails having threaded shanks are not too familiar to the public. W. H. Collins, ag engineer at the University of Massachusetts, explains:

"There are two general types of threaded nails. One has an annular-ring thread and the other a helical thread. The annular-ring threaded nail is most often used in soft wood, in which the nail can easily be driven. The wood fibers, upon penetration of the nail, spread and slide over the annular rings and then close down on the narrow diameter of the shank. Consequently, the nail cannot be withdrawn without damaging the surrounding wood fibers. For use in hardwoods and where maximum nail-holding power is a requirement, the helically-threaded nail is more effective. The helical thread causes the

nail to turn like a wood screw and displace the wood fibers in a similar manner.

Collins adds that it has been shown that a plain-shanked nail, when driven into green or partially seasoned lumber, will lose as much as three quarters of its initial holding power when the lumber seasons. This is due to shrinkage of the material surrounding the nail, thereby reducing the frictional resistance between the nail and the wood. Seasonal changes in average atmospheric humidity result in changes in lumber moisture content. This cyclic moisture change causes repetitive shrinking and swelling of wood, which in turn causes plain-shanked nails to "back out."

Many tests have shown the superiority of threaded nails over common nails. An example of the effectiveness of threaded nails in assembling stud framing is shown in Fig. 1.

In the test example shown, the threaded nail framing was more than four times stronger than a comparable building frame assembled with common nails. Threaded nails differ from common nails in that there is no decrease in original holding power upon seasoning of the lumber in which they are driven. In fact, their holding power may even increase with seasoning.

The greater holding power of threaded nails fulfills many needs, depending on where they are used in construction. The stiffness (rigidity) contributed to wall framing has been shown in Figure 1.

The "popping out" of flooring and wall boarding nails is eliminated and roofing of any type—sheet metal, shingle, or asphalt roll—is more securely fastened. These applications are only a few of the many improvements that can be obtained by the use of threaded nails.

Threaded fasteners are also available for nailing into concrete and concrete masonry. In fact, there is a threaded

nail fastener for practically every need, and through proper selection and use, quality construction is easily obtained.

#### WHAT COLOR ROOFS?

The kind and color of roofing material affects the amount of solar heat intake by the roof, which in turn influences temperatures in the living area of the home. The logical way to control this flow of heat through the attic is to keep it from entering.

That's the advice given by Jack G. Griffin, Mississippi agricultural experiment station.

He said that a survey was made to determine the types of roofing materials used on rural homes in Central Mississippi. Approximately 80 per cent of them were covered with asphalt shingles of some type. Color of the mineral roof surfacing material varied from white to a rather flat black.

Tests were made to determine the temperatures of the attic air and panel surface temperatures under different colors of asphalt shingles and painting the shingles on the roof. Colors tested were black, dark green, green blend, white, and shingles painted with plasticool (white paint material made for this purpose).

#### COOLER UNDER WHITE ROOF

The highest average maximum temperature for the ceiling panel surface (uninsulated attic) for the different colored roofs were as follows: black 99°, dark green 97°, green blend 94°, white 91° and white plasticool painted 87°.

For the full 16-day test the highest average maximum temperatures for the attic air for the different colored roofs were as follows: black 104.5°, dark green 103°, green blend 98°, white 95°, and plasticool painted 90°. For the six hottest days it was considerably higher. (Figure 2).

Insulating the attic can reduce ceiling panel surface temperature several degrees, especially when using the dark colored roofing. The two-inch mineral wool batt and the aluminum foil insulation had about the same insulating effect.

In past farm structures reports COUNTY AGENT & VO-AG TEACHER has discussed concrete slabs which are raised in position by a tractor. Walls are insulated with styrofoam. Steel buildings come in colors (steel and aluminum siding, too!) now-a-days. In our March issue we discussed in "Late Research" the "sandwich" panels being perfected—insulation between concrete layers—by the USDA. Watch for all manufacturers of building materials to use this idea.

These and other developments will help make farming more profitable in the sixties. ☆

# ag leaders speak up

## COUNTY AGENTS SOUND OFF

You asked for it! I took the bait.

I was really enjoying the May issue of *COUNTY AGENT & VO-AG TEACHER*—"Gimmicks" illustrated attention getters; and on over—"Humor Can Pay Off in Column Writing" was really full of meat. Finally, I got to the editorial by Mr. Berg, and here is where I received the jolt.

Your editorial was not consistent with the content of your magazine. Here, you lambasted the final realization of some Extension Administrators that all the technical knowledge in the world was useless unless disseminated. You say "The image of the County Agent is magnificent! Why change it." "He (farmer) couldn't care less about extension methods"—"leave the social problems to sociologist"—"Yet, the theme of your magazine has been consistently along the line of methods—not subject matter.

Possibly, the second paragraph of your article gives away your image of the County Agent, when you class extension agents with "all types of service people." My image of the County Agent is that of educator not service. Although, I'll admit we find ourselves in numerous service activities. We should do to people, not for people. Our job is to help them help themselves. The result demonstration, the method demonstration are effective tools of educators. Leadership development has helped communities make progress. Technical knowledge is then applied in reaching the goal.

Good educational programs motivate people to take action. If we feel that is true, then we must eliminate those service activities that are time users and therefore limit the number of people we can help. Too many times, we are so busy doing "chores" we don't have time to get to the field.

Should a TV Electronics instructor attempt to perform his responsibilities by doing TV Repair work?

You must sell yourself before people will avail themselves of your technical knowledge. There are hundreds of books on any subject that collect dust. The book has the "technical knowledge"—it does not have the ability to create awareness of, interest in, or the many other characteristics of an educator. This has been the major weakness of extension—too much emphasis on technical knowledge and not enough "people knowledge."

My responsibility is the Youth Program. It is an impossibility for me to become an expert in the 22 different project areas carried by our 4-H members. Since I rely on 205 Adult Leaders to disseminate the knowledge, my job demands that I know such things as "group techniques, Human development and methods," "Extension Methods," which you belittle, allow me the privilege of doing the important things, and eliminating inconsequential activities. This helps eliminate "Busy Work."

A general complaint among extension workers has been "How do you get 'em out to the meetings." "We were primed for a really good meeting." A little more learning in the field of sociology, communications, public re-

lations, educational methods, and human relations might be the answer.

Why change the image of the County Agent? I'll say, if we don't streamline and update our methods, we'll be on the outside looking in. There is no place in extension for dragging feet and complacency in this day of the space age.

And, I would like to ask, What should be our true image—Technician—Educator—Record Keeper—Contest Administrator? In light of our activities, where does the farmer place us? What was the intent of the Smith-Lever Act?

I say, too, "Thank goodness, all administrators are not agreed on this matter of what constitutes the most effective kind of training for County Agents." We are working with people—not things.

RICHARD L. CASS  
Associate County Agent  
Springfield, Missouri

Some of my Extension friends have asked that I comment on your editorial, "Beware of the academic trap." If the ideas I advance are of no consequence I humbly ask that you simply pass them up as the feeble rantings of tottering senility.

What do you really mean by your title? Do you honestly believe that large numbers of Extension administrators or "studies and training specialists" deliberately plan to teach Extension employees to do "busy work?" By "busy work" we take it you mean work of no genuine value to any one, work done simply to appear busy. If that is what you mean I sincerely disagree and I suggest that you take the time, and soon, to spend at least one full day with each of ten different administrators discussing in detail the problems faced by County Agents and the characteristics of and methods employed by those agents who are known to be most highly effective in their work.

I also offer the suggestion that you and Dr. Rogers consider using shorter and simpler words to the end that you may better understand each other and that you may be better understood. Just what do you two mean by the long words "technical proficiency?" To my un-academic mind a County Agent who is "technically proficient" must be one who knows what the farmer needs and knows how to get that to him. If that is what you mean why not say so? Is it that you are afraid you will be admitting that the other fellow is right too, as you seem certain you are? That of course would end the argument. Can it be that you do not want it ended?

Say, young fellow, just where does the word opportunism fit into a discussion as to which is more important, that a County Agent know what a farmer needs than that he know how to get it to him.

You say, "I was told recently that extension methods, extension philosophy and extension administration are key subjects these days at some institutions. So this is the 'help' the farmer is getting! Well, I'd like to go on record as saying that he couldn't care less about extension methods." So you really do not think it matters much to the farmers in

Marion County whether old John Yarbrough knows how to get over to them the information they need!

Boy, don't you love us, our administrators and the farmers! You surely must lie awake at night trying to think up ways to help us.

Publish this or throw it away, just as you see fit. But know that if I have given you cause to think, then I am

Sincerely your friend,  
JNO. F. YARBROUGH  
County Agent  
Hamilton, Ala.

## "WE AGREE WITH YOU"

Congratulations on another fine editorial appearing in the May issue. One of the worst problems which we have to face as state specialists is the county agent who knows all about the economics of his local market, many times without even knowing the managers of many of the firms. I'm sure that sociologists feel the same way.

The real problem that one faces in discussing this attitude is the definition of the responsibility of the state specialists with respect to the county agent. So long as the historical relationship exists, one primarily of training the county agent, you are never going to overcome the desire to make generalists out of specialized county personnel. However, when you accept the fact that state specialists have a program of education which does not involve the county agent, then you will have little or no trouble with the "academic trap." In this case you still have problems, but they are mostly of an administrative control type. In the case of economics, the county agent must accept the responsibility to guard against statements relative to economics unless these statements are based upon analysis. On the other hand, the state specialist should restrict his comments to economics, and should guard against statements relative to production.

We know that this area is gray, not black or white. I have just tried to outline a few thoughts relative to the idea which you stated so well in your editorial.

ROBERT D. DAHLE  
Extension Marketing Specialist  
North Carolina State College  
Raleigh

I have just finished reading your most interesting editorial, "In Summing Up beware of the academic trap," in *COUNTY AGENT & VO-AG TEACHER* (May, 1961) Magazine. I heartily endorse your viewpoints, even though I feel most agricultural workers need to "sharpen up" their skills in communication.

The weaknesses inherent in inadequate training and technical proficiency seem to be fully recognized by those out on the "firing line" but it is most disturbing to me that all too many directors of extension have developed the philosophy that the county agent needs the same kind of training and education that a director needs as an administrator. This is not true. To be sure, the county agent would be benefited if he possessed certain administrative skills (as many of them do), but first, and foremost, it is my belief that he needs a thorough education (as distinguished from training) in broad principles dealing with subject matter. This kind of education permits far more flexibility with respect to a variety of problems. I believe the day is long past when we merely need to train people in, say, "A simplified and rapid method of opening and shutting the (X company's) 'Lazy-Man's' gate."

A. M. SCHLEHUBER  
Small Grain Investigations  
Oklahoma State University  
Stillwater

Congratulations on your "Summing Up" pitch.

R. B. PARKS  
Agricultural Extension Engineer  
University of California  
Davis

## "We'd like to speak up ... but"

We have received many comments similar to the anonymous letter below which lend us to believe that the editorial was well received in many quarters, but "for obvious reasons" we cannot quote these people.

One county agent informed us, for instance, that he had just returned from a regional conference where he "heard many fine remarks" about the editorial. He assured us that he agreed with our point of view.

We do not wish to hinder the advancement of anyone who may be in line for promotion—nor do we intend to deliberately incur the wrath of administrators.

Rather, we hope to establish as "free" an airing of views as is possible. Unfortunately, this may not be possible.

It is a sad fact that county agents and extension specialists possess a real fear that their futures will be at stake if they "speak up."

COUNTY AGENT & VO-AG TEACHER leaves it up to you. We are confident that we have already made great progress in bringing some of the big problems in *Extension*, heretofore not publicly discussed, to the fore. It's up to you where we go from here.—EDITOR.

Mr. Gordon L. Berg  
COUNTY AGENT & VO-AG TEACHER  
Willoughby, Ohio  
Dear Mr. Berg:

My compliments to you on your fine editorial, "Beware of the Academic Trap!" in the May, 1961 issue of *County Agent & Vo-Ag Teacher* magazine. Please do not quote me in your magazine, and I think the reason for this request is obvious.

The "key subjects" of methods, philosophy, sociology . . . and administration are certainly receiving major emphasis by our administrators . . .

Being a ——— specialist, and since it is a field in which technical changes come fast and furious, it is the height of ignorance to say extension agents are adequately trained in subject matter, and this statement applies to the specialist staff.

In our highly organized institutions of today, you will find many staff members are unable to effectively present this problem to administrators. I certainly hope that you and other industry people will carefully study this problem—I believe that you can make a real contribution.

I can assure you that I am happy in my work, and I have made an investment of 24 years in extension as a county agent and as specialist. I place a high value on this investment, and want to protect it. The best protection is a program farm people will buy.

I just wanted to express my appreciation to you for this fine editorial. Incidentally, the article was called to my attention by another extension worker, and he had placed a big "Amen" under the title.

AN EXTENSION SPECIALIST

## Where do we go from here?

By GLENN MORRILL\*

EXTENSION workers have traditionally stated that "Extension cannot be all things to all people." This rather trite syllogism appears to be doing double duty again today in the classrooms of our land-grant institutions as well as in articles and editorials prepared for professional workers.

A good example is the recent editorial appearing in the May issue of *COUNTY AGENT & VO-AG TEACHER* prepared expressly for agricultural leaders. I quote Gordon L. Berg, editor:

"I say leave the social problems to the sociologist and the economic problems to the economist. That's what they're trained for. Just as soon as the county agent attempts to become all things to all people, he'll find himself in trouble."

I agree with this statement only in part. Certainly the county agent cannot be all things to all people, and he shouldn't try to be; but this fact argues for his gaining at least a working knowledge of sociological and educational principles rather than against his doing so.

Leave the social problems to the sociologist and the economic problems to the economist? Certainly not. Sociology, the science of human relations, is a vital part of family and community life. It is, therefore, important to Extension.

The success or failure of farmer cooperatives, artificial breeding associations, and all other organizations working for the welfare of the farmer frequently depends upon ability or lack of ability on the part of the county agent to operate in a sociological framework and keeping things running smoothly.

Not to be concerned about economic problems? How can the county agent ever be expected to succeed in doing anything if he is to leave the economic problems strictly to the trained economist? Economics may be properly defined as the "science treating of the production, distribution, and consumption of goods and services." In other words, this science is directly related to the material welfare of mankind.

In effect, if the county agent is not to be concerned with problems in sociol-

ogy and economics, he will not be concerned with the growing, hauling, and marketing of farm products; he will not be concerned with the material welfare of his friends; and he will not be concerned with the interrelationships of groups that are organized and exist to promote the common good. Such a county agent would be a mighty poor one in my book, and I doubt that he would be held in very high esteem with either the county board of revenue or individual farmers.

Since it is not feasible for county agents to try and be "all things to all people," what is his legitimate role and what is the training he needs to provide the competence necessary and/or desirable for assuming this role? This is a most important question.

Most counties produce a great variety of crops, livestock, and other agricultural commodities. I quote County Agent John Sellers, in a recent article printed in the *Birmingham News*:

"Up to last week a total of 32 farm commodities were being produced commercially in Chilton county. Now a new one, field peas, has been added to the list bringing the total to 33."

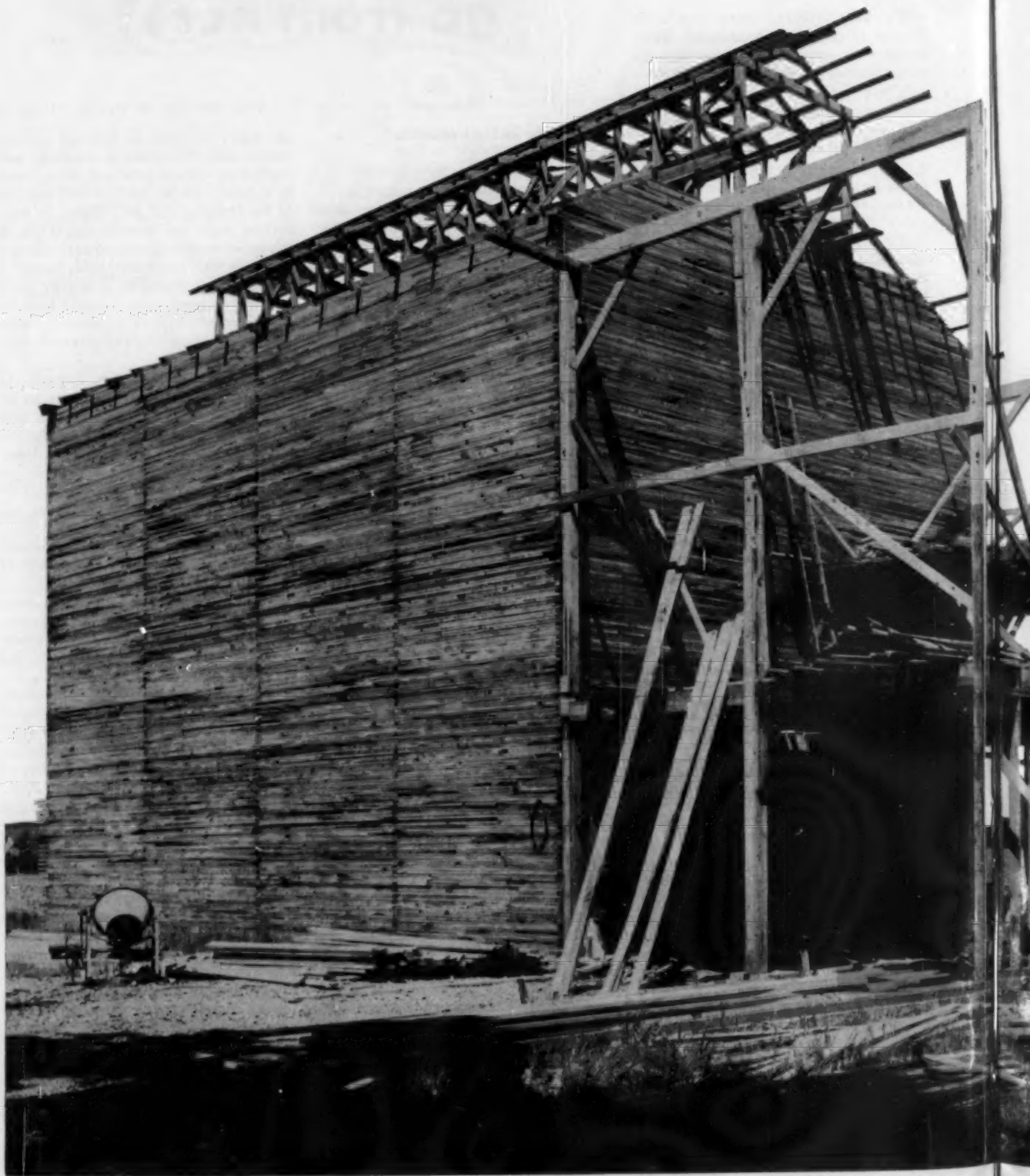
It is not claimed that Chilton county is typical of most counties in the United States. Perhaps it is not even typical for Alabama, but the above quotation should serve to emphasize the futility of the county agent meeting people's problems through specialization in technical agriculture. Specialization in any one area of agricultural subject matter is just not the answer.

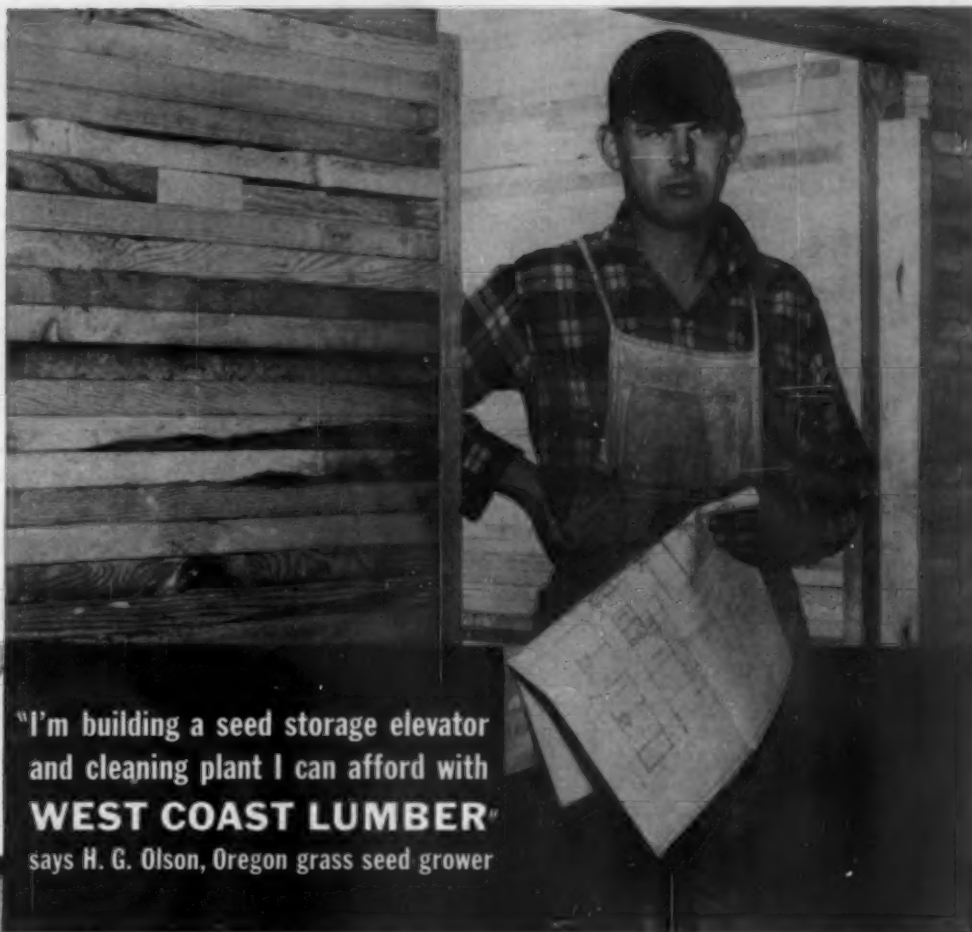
Extension's clientele in most counties is made up of an increasingly higher percentage of rural nonfarm and urban people. Our U. S. farm population continues to decline while rural nonfarm and urban populations continue to increase. Under these conditions the extension agent is required to deal with an ever increasing number and variety of problems. Not only is he obliged to assist in the solution of a wide variety of agricultural problems, he is frequently called upon to give leadership and

(Continued on page 25)

\*Extension Training and Development Specialist, Auburn University Extension Service Auburn, Alabama.







"I'm building a seed storage elevator  
and cleaning plant I can afford with  
**WEST COAST LUMBER**"  
says H. G. Olson, Oregon grass seed grower

"I shopped around for material that would do the job and found that this type of construction which makes use of the lower grades of West Coast Lumber 2x4's saved me 50% in overall cost," Seed Grower Olson continued. "It's an easy type of elevator to build. I hired two common laborers and we have laminated the entire elevator ourselves.

"The laminated construction system is well known and has been used for years. I used about 80,000 board feet of 2x4's and adapted the system to my particular needs. I will have my elevator and three seed cleaners in operation when my seed crops are harvested this fall."

Here is another practical example of the use of lower grades of West Coast Lumber in farm construction. The elevator is 34' x 48' with the outside walls going up 32' and the inside walls are built to 36'. The seed cleaning plant, located on the front of the elevator, is also framed with the lower grades of dimension lumber. The elevator is divided into eight bins and will store approximately 35,000 bushels of rye grass, alta fescue or blue grass seed from Mr. Olson's 1,100 acres.

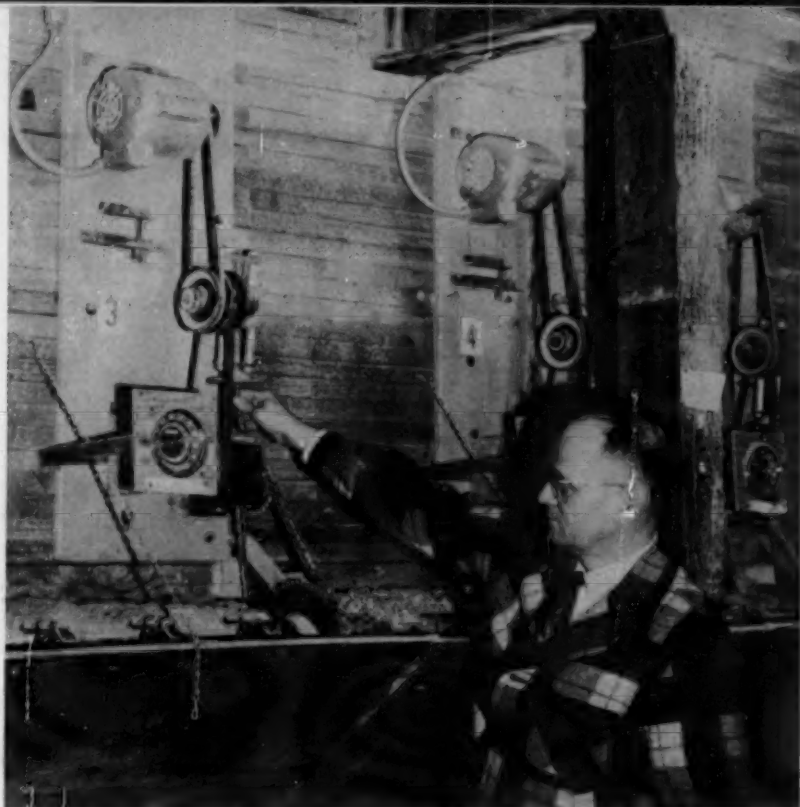
West Coast Lumber is your most versatile and practical material for building any type of farm structure economically. Your dependable source of supply is your local lumber dealer... ask him about grades and sizes to meet your building needs.

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# This feed blender does the whole job

By RICHARD L. WITZ

**A**UTOMATIC feeding is here to stay. But at least one major problem has remained unsolved—until recently, that is. Ag engineers at North Dakota State University think they've found the answer to the question:

*"When will a blender be developed that will 'accept' several kinds of feed from storage at different rates—then blend or mix these ingredients before their final processing or feeding?"*

A unit to do this job was installed in the dairy barn on the North Dakota agricultural experiment station farm in 1959 (see photo). Here's the way it works:

Variation in the flow of individual ingredients can be made by four adjustments: 1) moving the partitions within the large bin, 2) adjusting the gates at the front of the bin, 3) removing a chain from one or more of the sprockets on the

main drive shaft, and 4) changing size or number of cross bars on chain.

Moving of the partition may be a major job, but probably will only need to be done at the original installation and when major adjustments are made in the ration or feeding procedures. The adjustable gates at the front of the bin can be used for minor changes and will give about twice the flow when open as compared with the closed position. For free-flowing grains just disengage one or more chains to change the rate of flow.

The type of cross-bar used is designed to handle most dry ingredients including beet pulp. Free-flowing grains can be handled with any type of cross bar or the cross bars may be omitted. Cross bars are used to prevent bridging, to increase quantity of material, or to keep chain from climbing in the case of beet pulp.

This blender has been used successfully with a 1 horsepower hammer mill. There has been no indication that feeding concentrate through the hammer mill along with whole grain is a disadvantage. Roller mills have not been used successfully with this arrangement.

The salt feeder is a fertilizer attachment from a corn planter and should be a fiber glass hopper with cast iron base

This automatic feeding unit removes several kinds of feed from storage, at individual rates, then blends or mixes these ingredients in preparation for processing and feeding.

to resist chemical action of salt. Metering was not as accurate as for the chain drives, but the mechanism has functioned very satisfactorily since it was installed in 1959.

The installation in the dairy barn is more flexible in that each individual bin is driven with a separate motor and an individual variable-speed drive. This appears desirable where several small lots are to be fed using different rations.

## PLACING BIN PARTITIONS

The proper placing of bin partitions may be obtained on a trial and error basis but, since this requires some labor, it may be better to make the necessary calculations to establish the approximate location of these bin partitions. The partitions are placed directly over a chain or centered between chains.

The rate of feeding of various feed materials has been tested under many conditions. With a 2-inch gate opening and a chain speed of 2.37 feet per minute the approximate rates are as follows:

Soybean oilmeal	75 lbs. per hour per chain
Corn, oats and beet pulp	60 lbs. per hour per chain
Bran	25 lbs. per hour per chain

For corn, oats and beet pulp to feed at a comparable rates as soybean oilmeal, the space between partitions should be increased by a 75 to 60 ratio or 1.25 times. For bran the space should be increased by a 75 to 25 ratio or 3.00 times.

Suppose you want a ration of 4 parts corn, 3 parts oats, 1 part bran and 2 parts soybean oilmeal. Increase the corn and oats parts by 1.25 ( $4 \times 1.25 = 5.0$  and  $3 \times 1.25 = 3.75$ ); and increase the bran by 3.00 ( $1 \times 3.00 = 3$ ); and leave the soybean oilmeal at 2 parts.

Adding these corrected parts together gives a total of  $5 + 3.75 + 3 + 2$  or 13.75 corrected parts. Since the bin partitions have 29 positions, the bin length is divided into 30 divisions. It means that the corn would require  $5 \times 30 / 13.75$  or 10.9 (actually use 11) divisions of the bin; oats  $3.75 \times 30 / 13.75$  or 8.18 (actually use 8) divisions of the bin; soybean oil meal would require  $2 \times 30 / 13.75$  or 4.36 (actually use 4) divisions; and bran would require  $3 \times 30 / 13.75$  or 6.54 (actually use 7) divisions.

Set gates at a 2 inch opening and then check for accuracy by catching each ingredient into a separate container for a given time and weighing. Adjust by increasing or decreasing gate openings.

Plans may be obtained from the agricultural engineering department, North Dakota State University, Fargo, North Dakota.

☆



# Remarkable Phosdrin<sup>®</sup> Insecticide lets growers control destructive insects on many crops up to 24 hours from harvest

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**Crop leaflets**—These leaflets contain specific information for growers of veg-



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etables, cole crops, deciduous fruit, alfalfa, and sorghum. See the coupon below.

**Bulletin for Food Processors and Growers**—An Information Bulletin containing application intervals, dosages, safety precautions, compatibility with other pesticides, and other application information.

To obtain any of this material, simply fill out the coupon below and send

it to Shell Chemical Company, Agricultural Chemicals Division, Dept. 4367, 50 West 50th Street, New York 20, N. Y.



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# ag leaders audio-visuals

news and views by George F. Johnson

**H**ow do you go about creating a successful exhibit?

Mid-summer and autumn are exhibit time so let's face some of the facts of our exhibit life.

It is probably no exaggeration to say that in spite of all our know-how today, many of our exhibits do only a mediocre educational job. The five pathways to exhibit failure are these: 1) We clutter up the space using too many elements; 2) We overdo written material; 3) We use too few or too many colors; 4) We place the center of interest, if we have one, in the wrong place; and 5) We just do not get the exhibit's punch line reduced to its simplest and most appealing form.

Let's take the job one hurdle at a time. The first hurdle is to determine what the story is to be. Can it be displayed to attract the attention of people who at the moment may have other things on their mind? Will it be simple and clear enough that the average fair visitor can grasp the message in 30 to 60 seconds? Will it be beneficial—will the viewer feel that the few moments spent viewing the exhibit were in fact well spent?

Once the story is clear, the second hurdle is simplification. The most effective exhibits are built around a single idea with a minimum of supporting information. In a few simple words and pictures, for example, tell farmers that a new seed variety is better and why. It might be a good idea to make a miniature of the exhibit from paper or cardboard to see how it will look in full scale.

The third hurdle is how to get maximum attention. To attract attention and get people to stop at the exhibit, include something that will catch the eye. This might be a live object. Or it might be color, or movement, or light. This is where imagination comes in handy.

The final hurdle is how to use psychology to best advantage. Use the YOU approach, the experts say. Include appeal that will identify the subject matter with the viewer's own interest, experience and needs. To build up maximum appeal, use "before and after" photographs; use actual objects; con-

trast the old and the new; use models, drawings or actual demonstrations; use projected visuals.

One of the most puzzling features of exhibit making for many workers is how to use color effectively. Remember that colors which attract are red, orange, or yellow. Use pastels and neutral hues and shades for background. A good rule is to use vivid colors sparingly and on small areas, and pastel colors on large areas.

A final suggestion relates to lighting. Be sure to test your colors under lights—especially fluorescent lighting—since the quality and quantity of light can play tricks with exhibit colors. Another word of caution: Don't depend upon blinking lights for overall illumination.

Be your own exhibit judge. Here is a good score card: Effectiveness in catching attention 25 points, effectiveness in holding attention 25 points, effectiveness in teaching a lesson 30 points, and general appearance 20 points.

## NEW IDEAS AND EQUIPMENT

A general purpose **crepe paper tape** in a wide variety of colors, is now being produced by the Arno Adhesive Tapes, Inc., Michigan City, Indiana.

The tape known as C-659 tape, is backed by hitack, stain resistant, rubber-based pressure sensitive adhesive.

**Here's an idea** for teaming up the paper-pad-on-easel work with a slide projector for teaching record keeping. Make slides of the record sheets in 4-H for example, project them on the paper pad and then fill them in right before the class or club.

**A new clamp** now being made does away with the many time-consuming problems of exhibit construction such as holding mitred joints for gluing. The new tool has a hand-spring clamp and pivoting toothed jaw which grips wood, plastics and soft metal surfaces. According to Duane Nelson of USDA, these clamps are being sold by the inventor, Mr. Arvids Iraids, 5930 Argus Road, Cincinnati 24, Ohio. Write him for brochure.

The new **Soundstrip** projector, produced by Kalart Co., projects still pictures from a strip of 35mm film which carries its own sound track. Sound for each frame of still pictures is reproduced from a frame of optically printed sound track. A rotating light beam scans the sound frame, reproducing the sound, while the picture is held and projected on the screen.

**A new pamphlet** with detailed plans and instructions for building two types of rear projection cabinets is available from Eastman Kodak Co. The pamphlet also outlines the use of commercially available rear projection cabinets.

Both cabinets provide an 18" x 18" image area, and can be built in almost any woodworking shop, Kodak says.

You can have a free copy of the booklet (No. T-47, "Rear Projection Cabinets") by writing Sales Service Div., Eastman Kodak, Rochester 4, N. Y.



**A high-scoring exhibit** in a recent statewide vocational agricultural competition in Pennsylvania. The exhibit had a light gray background with blue lettering on white egg-shaped cut-out. Colorful streamers flowed from eggs in cooler and from humidifier. "Reddy" was in red with a flashing bulb as his nose. The entire exhibit was well-lighted by carefully placed flood lights.

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## SULPHUR IN PLANTS AND SOILS



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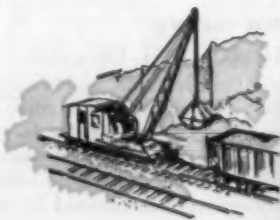
### **SOILS DO NEED SULPHUR!**

A re-examination of mineral requirements in crop-soils is very much in order.

In the wide and successful search for providing better soil foods based on the important triumvirate 0-0-0, there appears to be somewhat of a let down in studies of other soil minerals—the need for sulphur, for example. Tests indicate that there is a danger—even actual existence—of a sulphur deficiency in soils where certain crops requiring sulphur are grown.

To aid in this re-examination of sulphur values, we have prepared a 28 page booklet titled "Sulphur in Plants and Soils" which is edited by a well known authority on this subject. Write for copies not only for yourself but for others you feel would be interested.

*This brochure is Section V of our extensive Sulphur Manual discussing many phases of Sulphur. Section VI — Sulphur in Plant Diseases — will be available shortly.*



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# county agents, usa

By VIC CAROTHERS



Annual conferences can be fun, too! Here, Dr. Robert Dennis, extension agronomist, University of Arizona, takes a look at a wheel placed around Cormey Page's (Cochise County agent) neck to denote he is the "wheel" for the day, while John L. Sears (Graham County agent) looks on holding the gold brick. Each of these agents had certain "duties" to perform that day because of their selection. Dr. "Tiny" Shields, extension plant pathologist, University of Arizona, thought this up.

## AGENTS NEW YORK BOUND

The annual meeting of the National Association of County Agricultural Agents in New York City is Sept. 10-14. All indications point to a record number of county extension agents and their families in attendance. Room reservations are pouring in fast at the Waldorf-Astoria Hotel.

Earle Wilde, county agent, Liberty,

New York and chairman of the annual meeting, says final program plans are nearly complete. Many tours and special attractions are being planned to round out a week seeing and hearing the annual meeting theme "Marketing In Action."

## 4-H'ER SURPRISES AGENTS

For never-a-dull moment days in the life of county extension agents, Mayes County, Okla., offers this story of a "typical" 4-H club meeting.

Lee Garvin, assistant county agent, and Anna Lee Rouk, home demonstration agent, were attending the regular meeting of Welch 4-H club recently.

One boy made a talk on "Caring for Wildlife Pets." He climaxed his speech with "Would you like to see my pet?" Sure enough, everybody would. His pet—a fat and sassy skunk named "Pansy," which he generously let Miss Rouk hold.

## BYERGO GOES TO IRAN

Keith Byergo, county extension agent in Holt County, Mo., is taking a year's leave of absence to accept an International Cooperation Administration assignment in Iran. He will return to his position in February, 1962.

## FFA CHAPTER TACKLES A BIG JOB

**D**URING the past year, the Kearney, Nebraska, FFA chapter organized the Central Nebraska Sheep Improvement Association.

Quite an undertaking for a "bunch of kids?" Well, there's nothing juvenile about their operation. This was a new venture for them as they introduced a new selling cooperative into the community. And they worked like pros all the way!

Purpose of the co-op? To improve the quality of sheep in Central Nebraska. How? By having high quality rams and ewes available—at the same time furnishing a market for the sheep raised by the members of the association.

Upon organizing this cooperative, shares were sold to those who were interested in marketing breeding sheep through this association. There were fourteen original shareholders with eight additional added just this year. This should indicate that this association will be a continuing and expanding enterprise.

As a service portion of the sheep association, a portable dipping vat was added last year. This equipment cost was \$175 and was constructed in the vo-ag shop. Shares were sold to finance the vat. This vat has been used not only in the Kearney area but several communities fifty miles distant.

Organizing and writing articles of incorporation and by-laws are the necessary tools for teaching true cooperatives to our vo-ag classes. The sheep cooperative has also helped increase the number of sheep projects.



The sheep dipping vat has been quite busy. Here, the boys relax after giving a demonstration at the Buffalo County Fair.

## vo-ag news

### NVATA TO MEET DEC. 2-8

This year's National Vocational Agricultural Teachers Association convention should be an outstanding one, reports James Wall, executive secretary. Because of the central location—in Kansas City—attendance should be up, he said.

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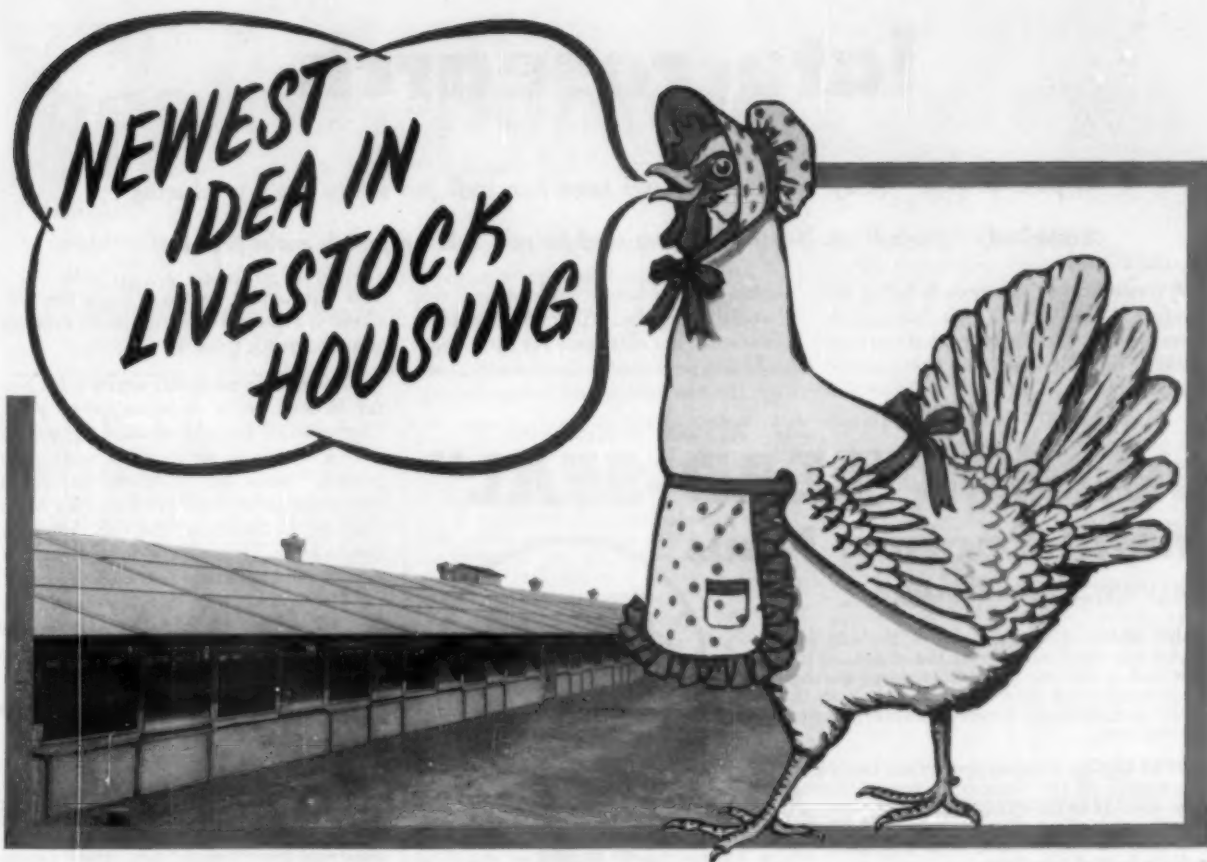
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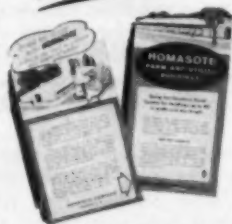
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# late research

- It pays to give "Bossy" a vacation, and keep her well fed while she's producing
- Somebody "goofed" in North Carolina and helped solve a peach scale problem

A **hover-craft sprayer** is being developed in California. This flying platform is similar to the types that have attracted the attention of automobile manufacturers. The craft will have a

working hover-height from 4 to 5 feet above the ground. This would readily allow spraying clearance for most vegetable and field crops. In orchard plantings, the machine would follow the reg-

ular equipment routes. Flying the machine is reported to be no more difficult than driving a tractor.

**Cows, like people, work** a lot better if they get a vacation every year. "Experience has shown that it pays to give a cow from six to eight weeks dry period," says R. R. Rich, extension dairy specialist at North Carolina State College. At the same time, the dairyman has to keep "Bossy" well-fed during her 305 days of milking time each year.

"If the dairyman can prevent heavy loss of weight while milking, he won't have to feed grain heavily while the cow is dry," says Rich.

## 2, 4-D growth stimulant too?

Joe Vandemark, vegetable crops specialist at the University of Illinois, is studying 2, 4-D and several related compounds most commonly considered to be weedkillers. But he's finding that, when used in micro-quantities, these compounds stimulate the growth and yield of green and dry beans.

**Sometimes a mistake** can pay off handsomely. About 15 years ago, Dr. C. F. Smith (now head of the entomology department at N. C. State College) was testing methods of controlling white peach scale. This was before the wave of new pesticides had swept over agriculture, and he was trying out different applications of oil at two-week intervals over a period of several months.

"In the spring, I got busy on something else and someone else did the oil spraying," recalls Smith. "But he sprayed the wrong trees," some that had already been sprayed a couple weeks before.

"It turned out that a double spray was just what we needed to control white peach scale," says Smith. "And the two-week interval was just the right timing."

**Possibilities of developing** hybrid wheat seed are encouraging, says James A. Wilson, wheat project leader at the Kansas State University branch experiment station at Hayes. A source of cytoplasmic male sterility which has possibilities has been found. But, he adds, it has not been thoroughly tested and evaluated in hard red winter wheat varieties. "With hybridity, nutrients and moisture are utilized more efficiently," Wilson said.

## DENISTON "LEAD-SEAL" Metal Roofing Nails

**GALVANIZED FINISH ONLY**

**LEAD SEAL**—The only nail with lead just under the head and down the shank. When the nail is driven, the hole around the nail is plugged with lead and the break in the metal is completely covered, to form a perfect double seal.

**TRIPLE LOCK**—The only nail that has a locking bump. As the "bump" is forced through the sheet, the sheet springs back over the bump—this effectively prevents the nail from working out. The nail, lead and sheet are solidly locked together.

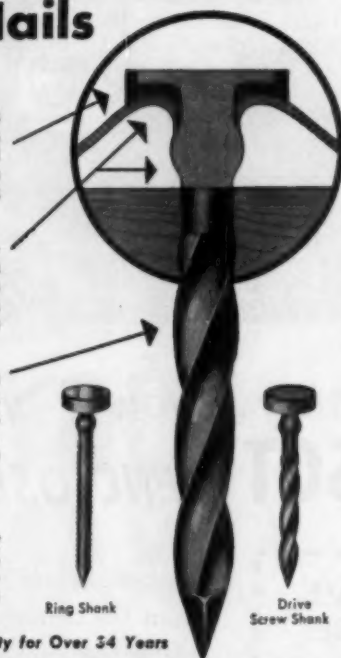
**DRIVE SCREW SHANK**—The only nail that is driven on the steel head. Drive screw shank makes the nail turn and hold like a screw. It holds with a powerful, unyielding grip. Threads are deep and sharp because they are formed after galvanizing.



### FREE LITERATURE

Folders "Avoid Roof Leaks" and "How to use Deniston 'Lead-Seal' Roofing Nails" sent free on request.

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6000 POUNDS OF PRESSURE is used to compress the lead cold, both over and under the steel head of the nail as well as down the shank. The lead forms a perfect seal in the hole made by the nail. Heads will not "pop" off from expansion and contraction of roofing nor from wind vibration.

FREE FOLDER ON REQUEST



## THE DENISTON COMPANY

4860 South Western Avenue • Chicago 9, Illinois





# booklet-bulletin reviews

Publications listed on this page may be obtained free of charge by sending a post card request to the company or manufacturer named. Be sure to say you saw it in County Agent & Vo-Ag Teacher.

## Audio-Visual Aids

### FILMS CATALOG

A listing of some 300 different agricultural films is available from United World Films, Inc., distributors of U. S. Government films. Subjects include farm management and maintenance, conservation, forestry, irrigation, animal and poultry diseases, insect enemies, etc. For a copy of the 12-page catalog entitled *Films for Agriculture*, write United World Films, Inc., 1445 Park Ave., New York 29, N. Y.

### PROJECTION GUIDE

If you are using any type of projection equipment or are considering using it, you'll be interested in Radiant Manufacturing Co.'s illustrated *A. V. Projection Guide*. It covers motion picture, silent and sound, slide, slide-film, opaque, and overhead projection for all types of users. The company would also like to send you information on their complete line of projection screens. Write Radiant Manufacturing Company, 8220 N. Austin Ave., Morton Grove, Ill.

## Chemicals

### VEGETABLE PEST CONTROL

Stauffer is offering literature on controlling pests in vegetable plantings from pre-plant treatment of seeds to harvest sprays. If you would like a copy of *Pest Controls for Vegetables*, write Stauffer Chemical Company, 380 Madison Ave., New York 17, N. Y.

### WATER WEED KILLER

In just a few days Aquathol can clear ponds and lakes of troublesome underwater weeds . . . without harm to fish or other water life . . . and leave water safe for domestic and recreation uses. Further information on this easy-to-apply and effective product is available from the manufacturer, Pennsalt Chemicals Corp., Aurora, Ill.

## Communications

### FARM INTERPHONE

American Telephone and Telegraph Company would like to tell you about their Farm Interphone system designed exclusively for farm use. It can save many times its cost by helping farmers make the most of their time and opportunities. For complete information, write American Telephone and Telegraph Company, Farm Interphone Division, Room 516 A, Dept. D, 185 Broadway, New York 7, N. Y.

## Crop and Soils

### SOILS NEED SULPHUR

Tests indicate that there is a danger—even actual existence—of a sulphur deficiency in soils where certain crops requiring sulphur are grown. If you would like to learn more about the importance of this soil mineral, you'll want a copy of *Sulphur in Plants and Soils*. The 28-page booklet is available from Texas Gulf Sulphur Company, 75 E. 45th St., New York 17, N. Y.

## Livestock & Poultry

### TURKEY MANAGEMENT

A 15-page booklet entitled *A Positive Program for Turkey Health* is being offered by Merck. It tells how to achieve efficient and profitable turkey production through good feed, sound management, and preventive medication. Write to Agricultural Products, Merck Chemical Division, Merck & Co, Inc., Rahway, N. J., for your copy.

### FEED ADDITIVE

Two new eight-page booklets are available from Abbott Laboratories on the use of Arsanilic Acid as a feed additive for poultry and hogs. Each booklet is liberally illustrated and contains a detailed question and answer section in which many aspects of the use of Arsanilic Acid in livestock and poultry feeds are discussed. If you would like copies of these booklets, write to Abbott Laboratories, Chemical Marketing Division, North Chicago, Ill.

## Structures

### ROOFING & SIDING

American Zinc Institute has available a free instruction manual on their fire-proof galvanized roofing and siding. You'll be interested in learning more about these zinc-coated steel sheets which provide a strong, sound, leak-proof roof that won't burn. Write to American Zinc Institute, 324 Ferry St., Dept. CA-7, Lafayette, Ind.

## METAL ROOFING NAILS

Folders entitled *Avoid Roof Leaks and How to Use Deniston "Lead-Seal" Roofing Nails* will be sent to you upon request by The Deniston Company, manufacturers of galvanized metal roofing nails. Just send a card to The Deniston Company, 4860 S. Western Ave., Chicago 9, Ill.

## PANELIZED FARM BUILDINGS

If you need the latest information on farm building construction, you'll want to investigate West Coast Lumber's panelized buildings which can be erected quickly, easily, and economically. New building may be erected in hours . . . panels may be added to existing panelized structures as needs grow . . . and panels may be built on the farmstead with farm labor. Write to West Coast Lumbermen's Association, 1410 S. W. Morrison, Portland 5, Ore., for a complete material list, panelization and truss assembly instructions and erection procedure.

## Tractors & Equipment

### FARM EQUIPMENT CATALOG

International Harvester will be happy to send you their 1961 catalog describing their complete line of farm equipment from backhoes to windrowers. Then they'll be glad to send additional information on the particular equipment you're interested in. For a copy of the catalog, write International Harvester Company, P. O. Box 7333, Chicago 80, Ill.

### POWER SPRAYERS

A new illustrated catalog just released by Allis-Chalmers describes their complete line of power sprayers . . . boom and broadcast. If you would like to have a copy, write Allis-Chalmers Manufacturing Company, Box 512, Milwaukee 1, Wis.

## Miscellaneous

### FARM LEVEL

Bostrom levels are so simple anyone can operate them by following the direction booklet included with each instrument. The Improved No. 2 Bostrom Farm Level can be used for terracing, ditching, irrigating, grading, tile draining, running lines, turning angles, etc. For literature and prices, write to Bostrom-Brady Mfg. Co., 528 Stonewall St., S. W., Atlanta 3, Ga.

### Get acquainted with the New Products

on page 24

- Professional Lettering
- High Pressure Spraying
- Mechanical Mother
- New Soil Fumigator



**KILL WEEDS**

**KEEP FISH**

**NEW AQUATHOL FOR FAST, SAFE CONTROL OF UNDERWATER WEEDS**

In just a few days Aquathol can clear ponds and lakes of troublesome underwater weeds . . . without harm to fish or other water life . . . and leave water safe for domestic and recreation uses. Developed exclusively by Pennsalt, Aquathol is easy to apply—effective.

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There are three type faces available—1-inch, 1½-inch and 2-inch.

Our readers can secure sample letters and more information by writing Stik-a-letter Company, Route 2, Box 1400, Escondido, Calif.

**MECHANICAL MOTHER**

The growers in your area will want to know about the new mechanical mother for calves that does everything but moo. This newly designed calf feeder, called Nurs-ette, automatically mixes a formula of milk-replacer powder and warm water, then feeds it to the calf.



To prevent one calf gorging it or hogging all the food, the feeder dispenses only a half-pint of formula at a time, then waits four minutes before another portion is released. First a pre-set amount of dry feed is dumped into the mixing bowl, next a stirrer thoroughly mixes the feed with water, then the bowl is filled with warm water. When the formula is thoroughly mixed, a switch triggers a check valve to a nipple so the calf can drain the bowl.

You can obtain more information by writing D. H. Brubaker, Micro-Switch Division, Minneapolis-Honeywell Regulator Co., 2753 Fourth Ave., Minneapolis, Minn.

**HIGH PRESSURE SPRAYING**

As you probably know, spraying is becoming more and more a potent weapon in the war against grubs, lice and hornflies which cause annual estimated losses in cattle of more than \$270 million. The versatile, high-pressure spray



rig can be used for a variety of jobs around the farm or ranch.

For livestock spraying, high pressure must be used to drive the spray through thick hair to penetrate to the hide itself for the most effective treatment. With the proper solution, it simplifies the job of killing weeds, controlling brush, spraying trees, disinfecting pens, barns, etc.

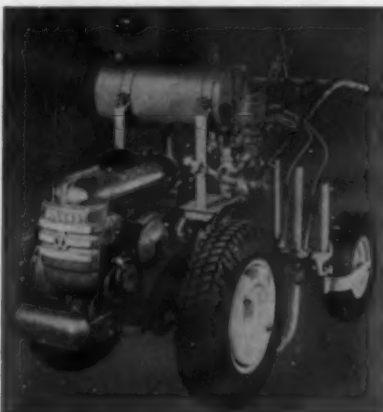
You can obtain complete information and free copies of the John Bean high-pressure sprayer catalog by writing Art Gerard, John Bean Division, Food Machinery & Chemical Corporation, Lansing, Mich.

**NEW SOIL FUMIGATOR**

While in Chicago last week, I discovered for you a new self-propelled soil fumigator designed for fumigating in both greenhouse and field. This new unit can accurately apply chemical fumigants at rates up to 150 gallons per acre. Working depths to 8 inches below ground are available.

A John Blue double-acting piston pump features an open, easy-to-read setting scale. In the picture, the fumigator is attached to a 4 hp Bolens Versamatic walking tractor.

You will want more information on this new soil fumigator, so write to Glenn C. Anderson, Morton Chemical Company, Agricultural Division, 110 N. Wacker Dr., Chicago 6, Ill.



COUNTY AGENT AND VO-AG TEACHER

## WHERE DO WE GO FROM HERE?

(Continued from page 13)

guidance in community organization and the solution of community problems. In fact, as leaders in Extension are now thinking the county agent will be playing an increasingly important organizational and educational role in rural resource development programs geared to raise the level of living and upgrade family and community life generally. This is a further adaptation of the idea of "helping people help themselves."

What this all adds up to is that as the Extension agent is called upon to work increasingly with an expanding clientele, his principal role will be that of an organizer-leader and an educator rather than an expert in cotton production, hogs, peanuts, or what have you. In this role he will have to depend more and more upon specialists and other professional people to meet an ever increasing number of problems.

His effectiveness in this role will depend upon his ability to work with people, help them to recognize their problems, and assist them in the development of human and other resources required to solve them. In this role, the extension agent becomes more and more an organizer of learning situations and less and less a doctor of animals or prescriber of fertilizers.

This does not mean that the agent should not specialize, but it probably does mean that the area of specialization should be re-examined in the light of the local situation—the sum total of all the circumstances existing in the particular locale or county. It probably means that as time goes by more agents should specialize in sociology, education, or perhaps in the communications field. Certainly, everyone will need some preparation in these human relations areas. ☆

★ ★ ★ ★ ★

### LIKES '50-50' APPROACH

Your May 1961 editorial appears to disagree with your subject matter. I recently completed a year of "half and half" graduate study—half technical forestry and half what you seem to term "academic." The non-forestry courses covered many helpful methods that will be a definite aid when I need a gimmick to attract attention for soil and water conservation, a method to help develop skills, to make my columns pay off or methods to help me "sell" forestry. (See pages 10, 16, 22 and 24 of the May issue). As teachers we must know both the subject matter and the teaching (and selling) methods. That is why we study Beal & Bohlen's Diffusion Process, salesmanship, journalism, speech, etc. It "pays off" in wider acceptance of new and proved ideas coming from our experiment stations. For years we learned nothing but technical information. Now we are also learning how to get it on the ground. Can we not try for greater proficiency in both areas?

IVAN R. MARTIN  
Extension Forester  
Auburn University  
Auburn, Alabama



# ARMIDEXAN<sup>®</sup> 75

tips the scales in your favor

Hog profits can hang in the balance during the first 3 to 4 weeks of a pig's life. That's the critical period when pigs grow the most per pound of feed. Experts say hog growers should strive to have pigs weighing 50 pounds at 8 weeks of age. Every day of anemia delays that goal and hikes your hog raising costs as well.

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ture or on concrete. And you can bank on the money Armidexan 75 saves you in feed—up to 70 lbs. per marketable hog.

Armidexan 75 provides the most completely safe, completely absorbed form of iron available. Little wonder it's known as the superior iron injectable that protects both your pigs and your profits. Remember, your pigs will get to market in the pink of condition when you push them along faster with Armidexan 75.

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# in summing up

## Of horse collars, cathedrals and things

**A**GRICULTURE is changing so fast that it even has the experts confused. What will farming be like in 1971? That's hard to tell. Who would ever have thought we'd be reading this item in 1961:

*Horse collars are in demand again! They're listed in the new Montgomery Ward farm catalog. Know what they're being used for? A new fad is to use horse collars for framing mirrors, pictures, and nostalgic mementos!*

Seriously, farmers will never use horse collars to any great degree, but farming constitutes a growing market for everything from mammoth tractors to—yes, horse collars for bigger and better recreation rooms!

In May, under "Sounding Board" we discussed, briefly, Administrator E. T. York's "goal for Extension." In his recent speeches, he has maintained his "line" that sounds more like *public education* than agricultural extension. The discouraging part of it is that it deals little with farmers or farm families, but rather with *platitudes*. The major one is that Extension's primary mission is that of *total economic development*.

I don't know when all this hysteria about broader horizons for Extension began, but frankly, it worries me. For one thing, Extension has had a mighty glorious past. Why should it want to duck out on farmers now? It would seem to me that one "new frontier" should be *helping the farmer make a profit* from his great technological achievements. And that's challenge enough for the next several decades!

Once again we ask: who has benefitted from all this increased technology, etc? Not the farmer! *The consumer, of course.*

Dr. York admitted just that. Here's what he said: "Between 1947 and 1959, agriculture's realized net income declined some 38 per cent. During the same period our gross national product and disposable personal income almost doubled. Obviously, our efforts are not being reflected directly in increased farm income."

I couldn't help but feel proud of Extension, Vo-Ag the Soil Conservation Service, FHA and other agencies when I read John Bird's article, "Kansas, My Kansas" in a recent issue of *Saturday Evening Post*. John was formerly associate editor of *Country Gentleman*. He wrote the following about his home state which he recently re-visited:

"The large, square-cut farms and ranches which cover the state are marvels of productive power, backed with science and hard-won skill. The old Dust Bowl? That area long has been green and the harvests abundant. The gritty ghost of the black blizzards was exorcized for good, Kansans believe, when a dry spell just as serious as that of the mid-'30's gripped the state for five years, 1952-56. Production sagged, of course, but there was no disaster, no exodus of dis-

possessed. Today's farmers use soil conservation methods, they have drought-resistant crops such as the amazingly productive new hybrid grain sorghums, and greatly expanded irrigation facilities—all of which soften the impact of drought."

Our land grant colleges and agricultural leaders can take the lion's share of the credit for what's taken place in Kansas and every agricultural area in the nation.

I'd hate to think of where the country would be today if it were not for agriculture's might! And it will take the combined efforts of all ag leaders to keep it strong.

In Dr. York's talks he tells the story of the three bricklayers building a cathedral—to establish his point about Extension's goal of total economic development. Here's Dr. York:

"This situation reminds me of the familiar story of the three bricklayers working side by side at their trade. Someone came along and asked the first one what he was doing. He replied that he was laying brick. To a similar question the second one replied that he was building a brick wall. But the third one stood up with great pride and said, 'I am constructing a great cathedral.' It seems to me that we in Extension have been inclined to characterize our mission as that of 'laying bricks,' instead of 'building a great cathedral.'"

This story is always effective. Trouble is, I think Dr. York is promoting something that lacks appeal—too altruistic! Just as we're all "against sin," aren't we all striving toward total economic development as we work in our various segments of the economy?

But ag leaders have already built a magnificent "cathedral" in rural America. The "Kansas, My Kansas" story in *Saturday Evening Post* brought out how farmers have been able to overcome obstacles that used to force them to go out of business.

The cathedral I'm referring to, of course, is the greatest *farm technology* in the world!

In planning extension programs for the future I feel the greatest risk is what will happen to the *county agent himself*. Let's make sure that he doesn't lose his identity in building the cathedral called *total economic development*. That's a mighty big order for one government agency which has always dived with agricultural problems.

What's more . . . like horse collars, we think agriculture will be around for quite some time.



Editor

COUNTY AGENT AND VO-AG TEACHER

A GRASS-ROOTS STRONGBARN STORY FROM NEBRASKA

## "Using Strongbarn, I built this 40' x 52' machine shed for less than \$1 a square foot"

Albert Peterson  
Trenton, Nebraska



*"I asked for Strongbarn, too. Because it's extra sturdy. With all the storms we get out here in the high plains, you've got to build strong," Albert reported.*

"I built this building all by myself. The only help I had was when I mixed and poured the concrete footings and floor. Took me about three months. Of course, I didn't work at it full time. I still had to feed my cattle every day, do other chores, go into town; and our bad winter last year cut into my working time, too. All told, I guess I spent about two months' working time finishing that shed.

"Last spring we had a storm come out of the northwest and it was a dandy. I thought our house was agoin'. 70-mile-an-hour winds hit us again and again. The next morning after that storm I climbed up on the roof of my shed, and that Strongbarn roofing was just as tight as could be.

"We had five feet of snow last winter, too. The roof had a real load of snow on it. Proves to me that Strongbarn can take it. After all that snow and the rain we had later on, I looked in my shed and didn't see any wet spots anywhere.

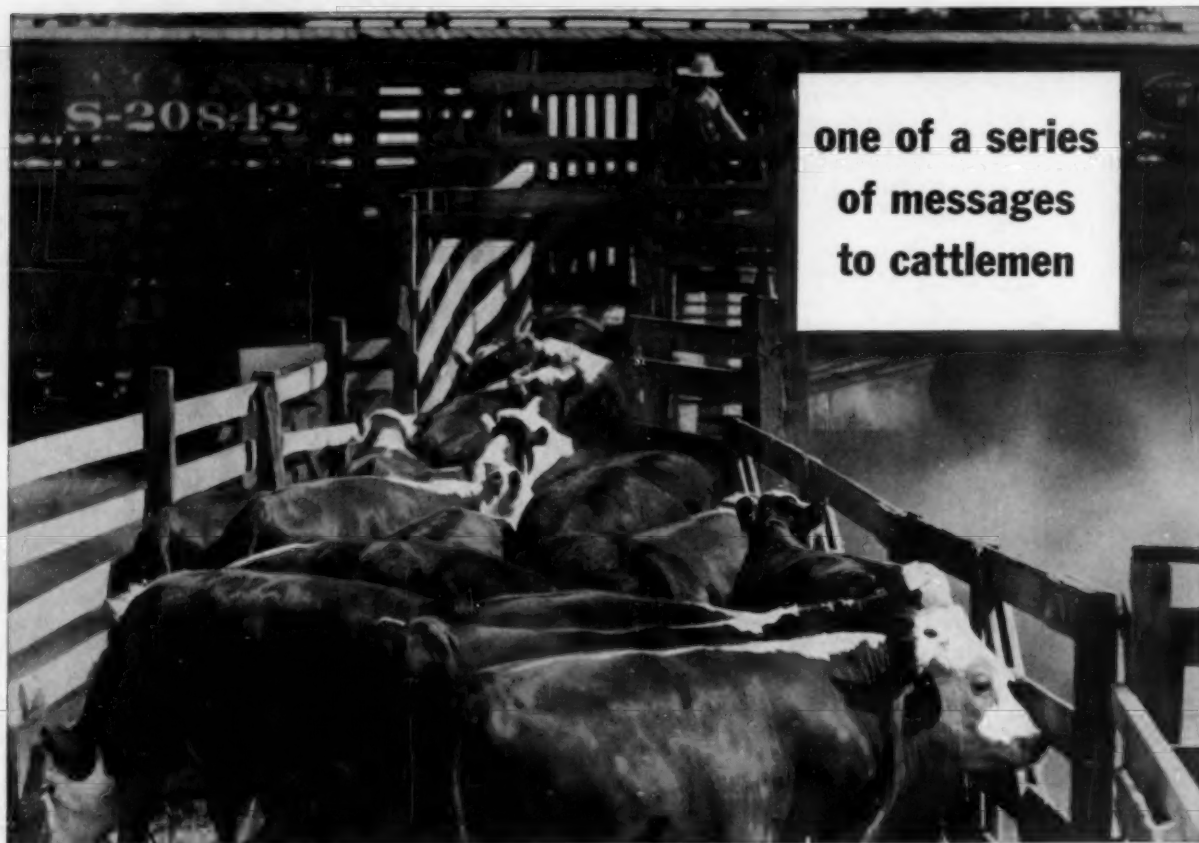
"This machine shed cost almost \$2,000, and that included everything—lumber, nails, concrete, Strongbarn, timber rings . . . well, everything. A lot of my neighbors came around to look at my shed. Everybody who looked at it thinks it's tops," Albert concluded.

## STRONGBARN

... twice as strong as ordinary corrugated steel roofing and siding of same gage and equal the strength of more expensive, heavier gage steel roofing and siding.



manufactured by GRANITE CITY STEEL CO., Granite City, Ill.



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of messages  
to cattlemen

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Fort Dodge Laboratories, Fort Dodge, Iowa

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